PCN Number:	20200605000.1	**PCN Date:**	June 12, 2020
Title:	Qualification of Cu as an alternate bond wire for select devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Sept. 10, 2020	**Estimated Sample Availability:**	Date provided at sample request

Change Type:

☐	Assembly Site	☐	Design	☐	Wafer Bump Site
☒	Assembly Process	☐	Data Sheet	☐	Wafer Bump Material
☒	Assembly Materials	☐	Part number change	☐	Wafer Bump Process
☐	Mechanical Specification	☐	Test Site	☐	Wafer Fab Site
☐	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Materials
				☐	Wafer Fab Process

PCN Details

Description of Change:

This PCN is to inform of an alternative bond wire qualification for the devices in the product affected section as follows:

Device Group	Current Bond wire, Diameter	Additional Bond wire, diameter
RGW	**Au, 0.96 mils**	**Cu, 1.0 mils**
DRZ	**Au, 0.80 mils**	**Cu, 0.8 mils**

Reason for Change:

Continuity of supply.
1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties
2) Maximize flexibility within our Assembly/Test production sites.
3) Cu is easier to obtain and stock

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Anticipated impact on Material Declaration

☐	No Impact to the Material Declaration	☒	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the TI ECO website.

Changes to product identification resulting from this PCN:

None

Product Affected:

BQ27411DRZR-G1D	DRV401AIRGWT	SN27411DRZR-B1	SN27411DRZT-B1
DRV401AIRGWR			

Qualification Results
Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: DRV401AIRGWR	Qual Device: SN27411DRZR-B1	QBS Package Reference: MUX36D04IRUM	QBS Package Reference: MUX36S08IRUM	QBS Package Reference: TPS25740BRGE
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	1/77/0	2/154/0	-
CDM	ESD - CDM	1000 V	-	-	1/3/0	1/3/0	1/3/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	Pass	Pass	PASS
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	1/77/0	2/154/0	3/231/0
HBM	ESD - HBM	4000 V	-	-	1/3/0	1/3/0	1/3/0
HTOL	Life Test, 125C	1000 Hours	-	-	-	-	1/77/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	1/77/0	2/154/0	3/231/0
LU	Latch-up	(Per JESD78)	-	-	1/6/0	1/6/0	1/6/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	1/77/0	2/154/0	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	-	-	-	-	3/231/0
WBP	Bond Pull	Wires	3/228/0	3/228/0	1/76/0	2/152/0	-
WBS	Ball Bond Shear	Wires	3/228/0	3/228/0	1/76/0	2/152/0	-

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/
Green/Pb-free Status:
Qualified Pb-Free(SMT) and Green

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